

arbor-vitæ forest, occupying an area of perhaps a half acre. Occasional normal plants of *Drosera rotundifolia* were found but these were always taller and coarser and far less abundant than the plant with foliaceous carpels. That this little plant maintains its peculiar character was shown not only by its distribution throughout one end of the bog, but by the shrivelled remnants of similar inflorescences on scapes produced in past years.

Whether the plant reproduces itself by means of the peculiarly developed carpels cannot now be stated. Living material now being studied at the Ames Botanical Laboratory and forming the basis for Dr. Leavitt's notes on page 14 will doubtless demonstrate this point. The plants, however, are not without their own method of abundant reproduction, for many of the specimens showed, springing from the decaying leaf-blades or the injured petioles, young plants such as have been already described by various observers.¹

The dwarf plant perpetuating itself and occupying a considerable area almost to the exclusion of normal *Drosera rotundifolia* may be called

DROSERA ROTUNDIFOLIA, var. **comosa**. Dwarf, the scapes 2 to 8 cm. high: leaves comparatively small, the blades 3 to 7 mm. long: inflorescence 1- to few-flowered, subcapitate: calyx crimson or roseate: petals greenish to crimson, sometimes foliaceous: carpels in maturity developed into green glandular broadly obovate or oblate petioled leaves: other portions of the inflorescence occasionally modified. — Wet boggy margin of a marl-pond, near the mouth of Grand River, Gaspé County, Quebec, August 13, 1904 (*J. F. Collins, M. L. Fernald and A. S. Pease*). Type in Herb. Gray.

GRAY HERBARIUM.

IDENTITY OF PRICKLY LETTUCE.

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THE earliest authentic records that we have of the presence of prickly lettuce in this country are three specimens collected in 1863 and 1864, in the vicinity of Cambridge, Massachusetts, and now in

¹ See Bull. Torr. Cl. xix. 295; RHODORA, i. 172, pl. 8; 206, pl. 10.

the Gray Herbarium of Harvard University. These were identified as *Lactuca scariola* L., and a description of the plant under this name appeared in the 5th edition of Gray's Manual, published in 1868. From 1880 to 1885 the plant was reported from several localities in Ohio, Indiana, Illinois and southern Michigan. It seems probable that there were several independent introductions of the seed mixed with poorly-cleaned field seeds. It became abundant in the regions where clover seed and grass seed are largely produced, and then its distribution rapidly increased. Within 30 years from the date of its first recorded appearance in this country it had reached every state and territory in the land, and in many localities it quickly came to be recognized as the most prolific and aggressive weed that the farmers had ever been troubled with. From 1893 to 1897 most alarming reports in regard to it were received at the Department of Agriculture. In some instances it was stated that valuable farms would have to be abandoned unless some means could be devised for keeping it in check. The danger period seems now to be past. The prickly lettuce has either found natural enemies which keep it in check, or for some reason it has lost much of its aggressive character. It is becoming much less abundant in regions where it formerly occupied nearly all the waste land and many of the cultivated fields, and the individual plants are generally less robust and less prolific than they were six to ten years ago.

All of the scores of specimens of the weed examined agreed with each other in their essential characters, and all were called *L. scariola* until within the past three years. In August, 1901, a specimen was received at the Department of Agriculture for identification, from Plainville, Hamilton Co., Ohio. This specimen differed from all others that had been examined in having runcinate or pinnately-lobed leaves. A careful study of the early descriptions proved that this form must be the true *L. scariola*, of Linnaeus. If this was *L. scariola*, the common form with unlobed leaves certainly was not, and for the first time in its history of nearly 40 years as a weed in this country its real identity became a matter of importance. A reference to the descriptions of *Lactuca* given by Linnaeus, and to some of the plates referred to, seemed to indicate that it was *Lactuca virosa* L. This is one of the species included with *L. scariola* by most English authors, who regard it as an entire-leaved form of that species. Dr. Britton's Manual of the Flora of the northern States and

Canada was in press at the time the specimen from Ohio was being studied. Attention was called to the misidentification of the plant, and *Lactuca virosa* was inserted in the appendix.

Since then the writer has examined several specimens from the Gray Herbarium and all of the *Lactucas* in the Herbarium of the Missouri Botanic Garden, and also in the Herbarium of the Field Columbian Museum as well as the U. S. National Herbarium. These collections include several European specimens of both *L. virosa* and *L. scariola*, the correct identification of which is not to be doubted. These two species are abundantly distinct, but our common prickly lettuce does not agree with typical forms of either species.

There was one specimen from the Gray Herbarium agreeing perfectly with our common form with merely dentate leaves, and labeled *L. scariola integrata*, Gren. et Godr. A further study of specimens and descriptions seems to prove that this is the correct solution of the three-cornered puzzle. The common prickly lettuce, having leaves without lobes, is *L. scariola integrata*, Gren. et Godr. Fl. France, 2: 320, 1850. The true *Lactuca scariola* is rare in this country, except in the central Ohio valley and *Lactuca virosa* is not found here at all.

The original description of *Lactuca virosa* in Linnaeus Species Plantarum¹ included also *L. scariola* and two illustrations are referred to in Morrison's Historia. One of these figures shows a plant with merely dentate leaves and the other with lobed leaves. Three years later Linnaeus published in Centuria II² his description of *L. scariola* referring to the figure with lobed leaves in Morrison's Historia, and furthermore stating that *L. scariola* "differs from *Lactuca virosa* (from which it is to be distinguished) in the vertical not horizontal plane of its leaves." The leaves of both forms in this country are turned in a vertical plane, and also to the north and south, when the plants grow in the open so that they are exposed to the light.

The true *Lactuca scariola* has been collected on ballast at New York, on the site of an Italian railway construction camp in Washington, and in Ohio, Indiana and Kentucky it is abundant within a hundred miles of Cincinnati. In Washington it does not spread, although the variety *integrata* is an aggressive weed there.

Aside from the leaves there seem to be no characters distinguishing the species from the variety, and a few specimens among the

¹ Sp. Pl. 795 (1753).

² Centuria II (1756). Reprinted in Amoen. Acad. 4: 328 (1759).

large number examined show some intergradation. Intergrading forms have been observed growing together at Lexington, Ky.

The principal distinguishing characters of the three forms are pointed out in the following descriptions:

Lactuca virosa has oblong-obovate obtuse leaves, rather thin and weak in texture and inclined to be bullate. So far as can be determined in pressed specimens they are horizontal. The achenes are black or very dark, with a comparatively short stout beak.

The leaves of *L. scariola* are runcinate, or pinnately lobed, firm in texture and with or without spines on the back of the midrib. They are turned in a vertical plane. The flowers are smaller than those of *L. virosa* and the achenes, also smaller and more slender, are light brownish-gray, usually mottled and with long slender beaks.

The leaves of *L. scariola integrata* have nearly parallel margins, with usually a broadly deltoid acute apex, and a firm texture. They are turned in a vertical plane and the midrib is either with or without spines. The flowers and achenes do not appear to differ from those of the species.

The flowers of both the species and the variety are yellow, but in the dried herbarium specimen they change to blue.

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LEDUM PALUSTRE, var. DILATATUM ON MT. KATAHDIN.—While examining with Professor E. B. Delabarre some Labrador material of *Ledum palustre*, L., and its var. *dilatatum*, Wahl., I was surprised to find in the Gray Herbarium a beautifully fruited specimen of the characteristic var. *dilatatum* collected by the late George Thurber on the summit of Mt. Katahdin, Maine, in August, 1847. The Thurber sheet is labeled "woods & summit of Katahdin, Me.", and contains two branches; one, a loosely forking branch of typical fruiting *L. groenlandicum*, apparently from "woods," the other, a dwarfed and small-leaved branch of heavily fruited *L. palustre*, var. *dilatatum*, obviously from the "summit."

Ledum palustre of Arctic regions presents two strongly marked variations, the true *L. palustre* with narrowly linear rigid leaves 1 to 3 cm. long, and the var. *dilatatum* with leaves linear-oblong as in *L. groenlandicum*. From the latter species of Greenland and boreal America, which commonly has 5 to 7 stamens and narrowly oblong or